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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,387	07/09/2002	Jon David Garlett	BUR920000198	5830
45831	7590	09/29/2006	EXAMINER	
DILLON & YUDELL LLP 8911 N. CAPITAL OF TEXAS HWY., SUITE 2110 AUSTIN, TX 78759			TSE, YOUNG TOI	
			ART UNIT	PAPER NUMBER
			2611	

DATE MAILED: 09/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/064,387	Applicant(s) GARLETT ET AL.	
	Examiner YOUNG T. TSE	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-8 and 10-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-8 and 10-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group II (claims 2-8 and 10-16 in the reply filed on July 21, 2006 is acknowledged.

Drawings

2. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "66" has been used to designate both "RCVR" in Fig. 4 and "Multiplexer" in Fig. 5. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be

labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: the reference sign "80" is not shown in Fig. 5 as mentioned in paragraph [0037], lines 1 and 2; paragraph [0040], lines 2, 4 and 6; and paragraph [0041], line 6 of the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to because the AND gate 96 shown in Fig. 5 include one input only. In general, any gate or logic circuit needs at least two inputs in order to perform the operation of the gate or logic circuit. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should

include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

6. The disclosure is objected to because of the following informalities: in paragraph [0035], line 7, there is no space between the words "SYSTEM" and "DATA"; in paragraph [0037], line 2, the reference signs "62, 64" appear to read "63, 65"; and in paragraph [0041], line 5, the reference signs "70 and 72" should be "62 and 64". Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 2-8 and 10-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The configuration of claims 2-8 and 10-16 does not correspond to the disclosure of Figs. 4 and 5 as mentioned in the specification. For example, each of the independent claims 2 and 10 recites a time adjust system introducing time changes in a data window during which the signal may be sensed and an activator enables on a random time basis the time adjust system to introduce time delays in the data window.

According to the present invention, Fig. 4 shows the detail embodiment of the self-test system 48 of Fig. 3 comprising at least a random digital sequence generator-linear feedback shift register 52, an activate circuit 54 and a multiplexer 60. Fig. 5 shows the detail embodiment of the active circuit 54 of Fig. 4 comprising at least a decoder 80, two delay circuits 83 and 85, and a time adjust system 56.

Regarding claims 2 and 10, the time adjust system 56 is shown in the active circuit 54 of Fig. 5. However, it is unclear which element(s) shown in Figs. 4 and 5 is considered as the activator. The specification also fails to use the word activator to

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perform the operation on a random time basis the time adjust system to introduce time delays in the data window.

9. Regarding claims 5-6 and 13-14, the activator is the random digital sequence generator-linear feedback shift register 52. However, regarding claims 7 and 15, the activator is part of the active circuit 54 shown in Fig. 5 including a decoder 80 for detecting presence of a defined sequence of digital code in the random digital number output of the random digital number generator. Further, regarding claims 8 and 16, the activator is the combination of the random digital sequence generator-linear feedback shift register 52 shown in Fig. 4 and the decoder 80 of the active circuit 54 shown in Fig.

5. The specification also fails to explain the claim subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention, for instance, what element(s) shown in Fig. 4 or Fig. 5 is considered as the decoder 80?

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 2-8 and 10-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2 (lines 3-4), claim 3 (line 2), claim 4 (line 2), claim 10 (lines 3-4), claim 11 (line 2) and claim 12 (line 2), the phrases "the signal", "the opening of the time window" and "the closing of the time window" all lack antecedent basis.

The dependent claims 5-8 and 13-16 are rejected to because they are either directly or indirectly depended upon the independent claims 2 and 10, respectively.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 2-6 and 10-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Keeth (U. S. Patent No. 6,430,696).

With respect to claims 2-4 and 10-12, Keeth discloses a bit-to-bit timing correction circuit 500 in Fig. 5 comprising a time adjust system (monitoring circuit 512) introducing time changes in a data window or data eye during which a received signal may be sensed and an activator (data receivers 502, command delay rings 506, shift registers 516 and an initialization control circuit 508) enables on a random time basis the time adjust system to introduce time delays in the data window. The monitoring circuit 512 detects changes in the data eye of an external clock signal and adjusts the previous adjusted delay time of each digital signal by a delay adjustment time responsive to each detected change in the data eye of the external clock signal (see

claim 7). The monitoring circuit 512 also introduces a time delay or an advance on the opening or closing of the time window by adjusting the time delay of each digital signal.

With respect to claims 5-6 and 13-14, the activator includes digital number generators or shift registers 516.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

16. Claims 7-8 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keeth as applied to claims 2, 5, 10 and 14 in view of Gomm et al. U.S. Pub. No. 2003/0223278 A1 (hereinafter "Gomm").

With respect to claims 7-8 and 15-16 as applied to claims 2, 5, 10 and 14, although Keeth does not show or teach the initialization circuit 508 includes a decoder for detecting presence of a defined sequence of digital code in the random digital number output of the shift registers 516.

Gomm discloses a dynamic access window unit 450 in Fig. 5 comprising similar circuitries of Keeth's bit-to-bit timing correction circuit 500. For example, a delay control 550 introduces time changes in a data window during which a received signal may be sensed and a control decode unit 540 enables on a random time basis the delay control 550 to introduce time delays in the data window. The control decode unit 540 is used to decode or correct presence of a defined sequence of digital pulses generated by the pulse generator 505. See paragraphs [0045] and [0046].

Therefore, it would have been obvious to one of ordinary skill in the art to include a decoder circuit in Keeth's control circuit 508 of the bit-to-bit timing correction circuit 500 to correct the digital signals of the shift registers prior to the adjustment of the time delay in the data eye or data window by the monitoring circuit 512 as taught by Gomm in order to reduce, for example, an addition decoder circuit in a demodulation circuit or a receiver for data correction.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Powell, II et al. discloses an eye pattern detector circuit for generating eye pattern characteristic information based on three sample values and outputting a symbol pulse in response to detecting eye pattern characteristic information consistent with a symbol center.

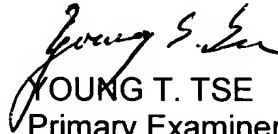
McCormack et al. discloses a data recovery circuit for sampling and comparing a data channel and a monitor channel to determine the data edges of a data eye of a data cell, the edges of the data cell are used to determine a center of gravity of the data eye to be used as a digitization point for the data signal in the data channel.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUNG T. TSE whose telephone number is (571) 272-3051. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


YOUNG T. TSE
Primary Examiner
Art Unit 2611